UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,143	10/06/2003	Kenichi Yamaguchi	03500.017297	3977

5514 7590 04/21/2004

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
SCHWARTZ, PAMELA R	

ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/678,143	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	Pamela R. Schwartz	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-28* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20031231*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-16, drawn to a recording medium and a substrate, classified in class 428, subclass 32.1.

II. Claims 17-28, drawn to a method of making, classified in class 427, subclass 152.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group II and of Group I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed by claim 1 can be made by a materially different process such as by casting an ink receiving layer, impregnating the cast layer with a cationic substance, peeling the layer from the casting surface, and utilizing the cast surface as the ink receiving surface.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ms. Dudek on March 31, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The examiner was unable to find a clear description of the claimed subject matter in the specification. For example, the terms and phrases "ink receiving portion" (taken in conjunction with its usage in the claims such as "said ink receiving portion includes an interface constituting a boundary of two different layers" in claim 2), "increasing region", "in a position separate from an ink recording surface of said recording medium for ink" and "said increasing region does not include said interface

between the two different layers", and the language of claim 6 do not appear to be defined clearly and are not well known terms, phrases or usages in the art.

On page 32 of the specification, a preferred embodiment is disclosed that appears to be relevant to claim 1. The disclosure states that: "[t]he aforementioned cation distribution can be formed by diffusing a water-soluble cationic resin not in the ink receiving layer but in the undercoating layer lying thereunder from a lower surface thereof into the interior thereof, and by diffusing an anionic substance from an upper surface thereof constituting an interface with the ink receiving layer." While this sentence appears to be the beginning of a description of how to make what is instantly claimed, there is no further disclosure concerning the "anionic substance." There is no description of what it is or how it is applied.

The specification does appear to disclose one or more articles and how to make them, but it is unclear how the claim limitations relate to the description in the specification and what aspects of the article(s) recited by the specification are related to the claimed inventions. There is a lot of description of an article made with two separate applications of cross-linking agents, but the examiner was unable to tie this description to the disclosure of how to form the cationic gradient on page 32.

Clarification is requested.

4. It is also noted that the specification appears to be a translation of a foreign document and it may be that some of the difficulty in relating the disclosure to the specification is caused by a failure to use consistent terminology or idiomatic English

when translating. Without adding new matter thereto, applicants are invited to make changes to the specification to make it more understandable.

5. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear what is meant by an "ink receiving portion." If this is intended to be partial coating of a substrate, then a substrate must be recited so that the meaning of this phrase is clear. Otherwise, what is the whole that the "portion" refers to? Also, what does the "reactive substance" refer to (this also applies to claim 14)? Is this the cationic substance referred to in the specification or does it refer to something else? Finally, if "in a position separate from an ink recording surface of said recording medium for ink" refers to the "increasing region", how is this separated from the surface of the medium?

In claim 3, does "in a position more separate than said increasing region from said ink recording surface" mean that the decreasing portion is farther from the surface? The language "more separate" is confusing because it is not idiomatic English.

Claims 4 and 5 state that the alumina hydrate layer is "on the side of said ink recording surface." Does the ink receiving portion have to be on the ink recording surface side? If so, this language is confusing because it makes it sound as if the alumina hydrate could be elsewhere and still be included in the ink receiving portion. For clarity, it is suggested that the phrase set forth above be deleted. In addition, what does "a portion of distribution of the maximum concentration" in claim 5 refer to?

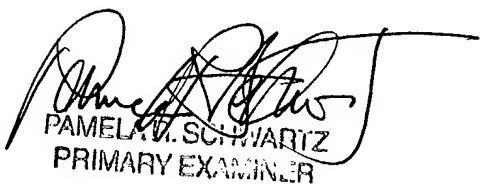
In claim 6, how can an "increasing region" be "formed by said interface [of two layers] not including said reactive substance"?

In claim 7, there is no antecedent basis for "said ink receiving layer." With respect to the two applications of cross-linking agent, the specification indicates that they are coated onto the underlayer prior to coating of the ink receiving layer (see pages 38-47). The description of Figures 2 and 3 on page 61 indicates that use of the cross-linking agent forms a first region and a second region, the first of which is cross-linked by the first cross-linking agent and the second of which is cross-linked by the second agent but to a higher degree. This is consistent with the claim but it is unclear why the second region would not be cross-linked by both cross-linking agents, and therefore, be cross-linked to a higher degree. Since both cross-linking agents are present at the same interface, it is unclear how they could exclusively cross-link to separate sections of the same layer. Clarification is requested. This request applies to claims 11 and 14 as well.

6. At this time, the specification and claims too confusing for a complete search and evaluation of the prior art to be conducted. In order to determine the state of the art and the terms of art, the examiner has considered the prior art submitted by applicants and has recorded this consideration on the PTO-1449 and returned them to applicants. This art will be reconsidered upon clarification of the specification and claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on (571) 272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
April 18, 2004